

[Chinese Journal of Parasitology and Parasitic Diseases, 15, 334-337 (1997)]

[Lab. of Herbal Garden]

Effect of Alcoholic Extract of Scorpion on *Cysticercus Cellulosae* in Vitro.

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To demonstrate the effect of alcoholic extract of *Buthus martensii* against *Cysticercus cellulosae*. Fresh *Cysticercus cellulosae* were cultured in 15% swine bile medium containing Scorpion alcoholic extract. The Scorpion extract at 26mg/ml exerted profound effect in destroying cysticerci as assessed by the morphological changes and loss of vitality. *Cysticercus cellulosae* were cultured in medium containing Scorpion extract for 4, 6 and 8 hours, evident pathological changes were revealed. The main microscopic features were peeling of microtriches, swelling, and deformity of rostellum and suckers of evaginated cysticerci. Scorpion extract exerts damage effect on both the tegument and scolex of *Cysticercus cellulosae*.

[Economic Botany, 51, 195-211 (1997)]

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Traditional Medicine in Turkey 8. Folk Medicine in East Anatoria; Erzurum, Erzincan, Agri, Kars, Iğdir Provinces.

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Traditional drugs used in the east Anatoria including Azure, Erzincan, Agri, Kars, Iğdir, and Ardahan provinces have been surveyed. 169 remedies obtained from 87 plant species belonging to 38 families and 10 animal species are listed with their vernacular names, parts used methods of preparing drugs, and traditional usage's. Although traditional medicine is still widely practiced throughout the region, medicine and pharmaceuticals rapidly replace it. Furthermore, owing to the migration of rural people from village to large cities in recent years, particularly to Istanbul, knowledge of traditional therapy is being rapidly. In Erzincan, Ardahan, Kars provinces, this problem is especially evident. For the sake of preserving traditional medicinal knowledge, immediate action must be taken to record folk knowledge of traditional medicine and therapy before it disappears completely from Turkey.

[Natural Medicines, 51, 298-303 (1997)]

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Discrimination of the Botanical Origin for *Geranium* Herb Based on Chemical Difference of Flavonoids.

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Geranium thunbergii plants were divided into two groups, on the basis of their flavonoid compositions. The plants of one group contained kaempferol 3-O-rhamnoside (afzeline, 1), whereas those of the other group contained kaempferol 3-O-arabinoside-7-O-rhamnoside (2) and kaempferol 3, 7-di-O-rhamnoside (kaempferitin, 3). All of the wild plants of *G. thunbergii* in Japan belonged to either of the two groups. Other *Geranium* spp. generally did not contain these flavonoids, though *G. sibiricum*, *G. tripartitum* and *G. nepalense*, which are closely related to *G. thunbergii*, contained 2 and 3. The assay of three flavonoids may be used as the chemical characters of geranium Herb for identification of the botanical origin.

[Natural Medicines, 51, 376-378 (1997)]

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Nucleotide Sequence of 5S-rDNA Intergenic Spacer Region in *Angelica acutiloba*.

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By using the polymerize chain reaction from *Angelica acutiloba* var. *iwatensis* (Miyama-toki), *A. acutiloba* var. *acutiloba* (Toki), *A. acutiloba* from Nara (Yamato-toki) and *A. acutiloba* from Hokkaido (Hokkai-toki), 5S-rRNA gene spacers were amplified and sequenced. The spacer sequence of 214bp was shown to be completely identical among *A. acutiloba* plants examined and to be homologous to 5S-rRNA gene spacers amplified from some other medicinal plants belonging to Umbelliferae.